

Draft Waste Min Measure For 2002 UC Contract

1.2.c. Waste Minimization, Affirmative Procurement, Energy and Natural Resources Conservation, Pollution Prevention, and TRU Waste Minimization. This measures Laboratory performance in support of the 13 DOE 2005 Pollution Prevention, Energy Efficiency Leadership Goals that apply to Laboratory operation. The measure is divided into two parts. The first measures performance toward nine of the goals, new best practice implementation, and Pollution Prevention Opportunity Assessments. The second measures transuranic waste minimization performance.

(Weight =15%)

1.2.c.1 Waste Minimization, Affirmative Procurement, Energy and Natural Resources Conservation, and Pollution Prevention

The DOE 2005 Pollution Prevention, Energy Efficiency Leadership Goals addressed in this measure include: 1a) routine hazardous waste minimization, 1b) routine low-level waste minimization, 1c) routine mixed low-level waste minimization, 2) TRI chemical use reduction, 3) routine solid sanitary waste minimization, 4) sanitary material recycling, 5) clean-up/stabilization waste reduction, 6) affirmative procurement (purchase of EPA-designated recycled content items), and 9) replacement of ODS Class I chillers (>150T). These goals are established in Secretary of Energy Memorandum, subject: Pollution Prevention, Energy Efficiency Leadership goals, dated November 12, 1999. Laboratory performance toward the goals will be measured through an index that combines performance toward individual goals into a single index number expressed as a percentage. A zero index corresponds to baseline year performance; a 100 corresponds to achieving the 2005 goal. All nine goals are weighted equally in the index. Also as part of this measure the Laboratory will implement successfully piloted pollution prevention best practices on a site-wide basis. Finally, under this measure the Laboratory will conduct Pollution Prevention Opportunity Assessments using the New Mexico Green Zia tools.

(Weight =10%)

Assumptions:

- The performance period is October 1, 2001, through September 30, 2002.
- In the event of workload changes that significantly affect routine, solid LLW, MLLW, SAN or HAZ waste generation, the Laboratory will bring these workload changes to the attention of DOE and UC who will negotiate a measurement adjustment. Workload changes are determined by site operating budget, site commodity procurements, component or assembly production schedules, or such other measures as reflect the site workload.
- In cases where a higher level waste is decontaminated or otherwise processed to a lower level of waste, the lower level waste will be excluded from the measure.
- Goal 1a, hazardous waste includes Resource Conservation and Recovery Act (RCRA) hazardous waste and New Mexico Special state-regulated solid waste.
- Goal 1b & 1c, LLW and MLLW metals that cannot be recycled, because of the DOE radiation area recycling suspension, will not be included in computing LLW and MLLW minimization performance.
- Goal 3, routine sanitary waste generation does not include waste generated from D&D, cleanup and stabilization activities, soils, asphalt, or construction rubble.
- Goal 4, the recycling rate includes routine and non-routine solid sanitary waste. The recycling rate is equal to the total amount of sanitary waste recycled divided by the total amount of sanitary waste recycled plus the total amount of sanitary waste disposed.
- Goal 9, replacement of ODS Class I chillers is contingent on LANL submitting a replacement chillers funding request and DOE providing funding.
- For P2E2 Leadership goals with a baseline year and amount, the individual goal index value is (1 minus the current year value divided by the baseline year value) divided by the fractional reduction goal expressed as a percentage. For goals that are a percentage, the individual goal index value is the current year performance expressed as a percentage. Percentages will be rounded to the nearest whole number. The nine individual index values will each be capped at 100%. The overall index value is the average of the nine individual goal index values.

- Laboratory performance toward the index values is summarized below. The Laboratory FY 00 performance index value was 63. The projected FY 01 performance index value is 72.
- Should the Laboratory see a year to year performance decrease for any of the nine goals, it will submit to DOE an analysis of the sources of that decrease and plans for returning to positive performance.
- Where conflicts between cost effective waste management/disposal operations performance measures and waste minimization/recycle performance measures exist, LANL will document the conflict and bring it to DOE's attention for resolution.

#	Goal Title	05 Goal % Reduction	Baseline (year)	FY 00	05 Goal	Index
1a	Hazardous waste reduction	90	307 MT (93)	22 MT	31 MT	100
1b	LLW reduction	80	1987 m3 (93)	401 m3	397 m3	100
1c	MLLW reduction	67	12.3 m3 (93)	5 m3	4 m3	89
2	TRI chemical use reduction	90	88,293 lbs (93)	26,057 lbs	8,829 lbs	78
3	Sanitary waste reduction	40	2228 MT (93)	2353 MT	1337 MT	-14
4	Sanitary material recycling	45	N/A	9%	45%	20
5	Cleanup/stabilization waste reduction	10	N/A	25%	10%	100
6	Purchase of EPA designated items	100	N/A	93%	100%	93
9	Replace ODS Class I chillers, >150T	100	3000 T (00)	3000 T	0	0

- The table below shows the anticipated progress toward achieving the 2005 goals. (* means that the individual index values are not capped at 100 and that all index values equal or exceed 100.)

	2002	2003	2004	2005
Unsatisfactory	<72	<77	<82	<88
Marginal	>72	>77	>82	>88
Good	>77	>83	>88	>94
Excellent	>82	>88	>95	>100
Outstanding	>88	>94	>100	>110*

- High-impact Pollution Prevention best practice applications are process improvements that minimize waste, conserve water, or otherwise protect the environment through prevention. The best practices, that have been successfully piloted, will be implemented in all Laboratory activities, where they are safe and cost effective. A list of best practices is developed by October 31 for consideration for Lab-wide implementation. Highest ROI projects and/or projects with the greatest waste minimization impacts will be given implementation priority.
- The Laboratory will report implementation of current and previous year Green Zia Tools action plans.
- Of the 7% weight applied to this measure, the index = 3%, the pollution prevention best practice site-wide implementation = 3%, and the Green Zia tools applications = 1%.

Gradients:

Unsatisfactory:

- Index value is less than 72
- No pollution prevention best practices are implemented site-wide.
- No Green Zia tool applications action plans are documented.

Marginal:

- Index value is between 73 and 77.
- One pollution prevention best practice is implemented site-wide.

- One to two Green Zia tool applications action plans are documented.

Good:

- Index value is between 78 and 82.
- Three pollution prevention best practices are implemented site-wide.
- Three to four Green Zia tool applications action plans are documented.

Excellent:

- Index value is between 83 and 88.
- Four pollution prevention best practices are implemented site-wide.
- Five to six Green Zia tool applications action plans are documented.

Outstanding:

- Index value is greater than 88.
- Five pollution prevention best practices are implemented site-wide.
- Seven or more Green Zia tool applications action plans are documented.

1.2.c.2 TRU Waste Minimization

The DOE 2005 Pollution Prevention goals require that the DOE complex reduce routine TRU/MTRU waste generation 80% by 2005 compared to a CY1993 baseline. The goal for FY2002 TRU waste minimization Performance Measure is to measure progress against the DOE 2005 Pollution Prevention goal. However, from a facility specific perspective, the baseline for determining reduction goal will be based on TRU waste generation FY96 thru FY99. This period represents years that NMT operations were fully operational for the entire year. The baseline is determined by taking the average TRU waste generation for FY96 –FY99, computed to be 100 m³. The Laboratory is committed to achieving a 50% reduction in TRU/MTRU Waste generation over the next 4-year period depending on the assumptions outlined below. FY02 will be the initial year for the implementation of Laboratory plan for meeting this goal. For FY02, the Laboratory is committed to achieving a 10% reduction of TRU waste volume to 90 cubic meters

(Weight = 5%)

Assumptions:

- The performance period is October 1, 2001, through September 30, 2002
- The Laboratory will request DOE funding, through programmatic funding mechanisms, to achieve pollution prevention on two fronts: at the source (through planning (ISM) for elimination, minimization and/or avoidance); post generation (through volume reduction, handling practices, conversion methodologies). In addition the Laboratory will utilize internal funding mechanisms to also meet these objectives.
- LANL will prioritize workload, taking into account P2 activities, and operate P2 technologies that DOE has already funded as part of base operations. New technologies to meet these goals will become part of base operations upon acceptance testing/readiness assessment.
- The measure is based on current NMT production and workload, if there is appreciable escalation in production or a change in the mission that would result in significant reduction in waste generation volume the Laboratory or DOE may request a re-negotiation of this measure.
- For the purpose of this measure, TRU includes MTRU.
- Routine TRU waste is defined as all waste except TRU legacy, work-off (Vaults) and construction waste.
- The amount of routine TRU waste is determined after the planned decontamination and volume reduction of the waste is taken into account at the point of generation
- The table below shows the anticipated progress toward achieving the 2005 goals. The numbers are the TRU waste volume in cubic meters (m³) to be attained to achieve the specified performance score.

	FY 02	FY 03	FY 04	FY 05
Unsatisfactory	>96	>92	>80	>60
Marginal	96	86	73	56-60
Good	92-95	82-85	69-72	51-55
Excellent	90-91	80-81	65-68	21-50
Outstanding	<90	<80	<65	20

Gradients:

Unsatisfactory:

- No reduction TRU waste generation

Marginal:

- 4% or less reduction in TRU waste generation of the baseline average (FY96-99) of 100 m³

Good:

- 5-8% reduction in TRU Waste Generation of the baseline average (FY96-99) of 100 m³

Excellent:

- 9-10% reduction in TRU Waste Generation of the baseline average (FY96-99) of 100 m³

Outstanding:

- >10% reduction in TRU Waste Generation of the baseline average (FY96-99) of 100 m³